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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,449	08/13/2001	James Lucas	3552-0107P	4275

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EXAMINER

CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/831,449

Applicant(s)

LUCAS ET AL.

Examiner

MONZER R CHORBAJI

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 27-30 and 32-47 is/are rejected.
- 7) ☐ Claim(s) 4-26, 31 and 46-47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/2702 & 6/22/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a general office action in response to the application filing date of 08/13/2001

Claim Objections

1. Claims 4-27 and 31 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 1 to 3. See MPEP § 608.01(n). Accordingly, the claims 4-27 and 31 not been further treated on the merits.
2. Claims 46-47 are objected to because of the following informalities: Both independent claims 46 and 47 are the same. Canceling one of the claims requires appropriate correction.

Claim Rejections - 35 USC § 112.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 27, 32, 41 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. These claims are omnibus type claims.

In considering claims 27, 32, 41 and 45, the examiner will assume that such claims include the limitations of independent claims 1, 28, 33, 42 and 47.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application

by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-2, 27-29, 32-36, 38-41 and 45-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Bailey et al (U.S.P.N. 6,028,315).

With respect to claims 1, 27-28, 32-33, 41 and 45-47, the ('315) reference discloses an apparatus (figure 5) and a method for sterilizing containers (col.1, lines 3-6) including the following: UV lamp (figure 1, 4) within an enclosure (figure 5, 111), a microwave energy source for exciting the lamp (figure 5, 104), an enclosure that is optically transparent waveguide (figure 5, 111 and col.5, lines 55-58), a dominant wavelength from 200 nm to 280 nm (col.3, lines 7-9), and a plurality of UV lamps within enclosures (col.3, lines 13-15). In addition, the ('315) reference recognizes the need to sterilize containers (such containers inherently contain contaminants, i.e., molecular entities) with UV lamp operating at germicidal (the term is interpreted as inhibiting the growth of microorganisms) wavelengths (col.5, lines 1-36) such that the method, which irradiates liquid containers (col.1, lines 3-6), inherently promotes photochemical reactions in such liquid thereby sterilizing them.

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With respect to claims 2, 29 and 34-40, the ('315) reference discloses the following: the dominant wavelength of the UV light from 200 nm to 280 nm (col.3, lines 7-9), organic molecular entity in fluid that flows past the enclosure (col.1, lines 3-5 and col.3, lines 13-15), organic material is oxidizable (irradiating containers with germicidal UV light inherently promotes photochemical reactions), contaminants on a surface (figure 1, 4 and 6) and the surface is of a food product (col.3, lines 33-36).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 3, 30 and 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al (U.S.P.N. 6,028,315) in view of Spero et al (U.S.P.N. 3,911,318).

The teachings of the ('315) reference have previously been set forth with respect to claims 1-2, 27-29, 32-36, 38-41 and 45-47. However, regarding claims 3, 30 and 42, the ('315) reference fails to teach a dominant wavelength of UV light from 330 nm to 370 nm. The ('318) reference, which is in the art of designing UV light devices to promote free radical formations (col.4, lines 20-24), teaches that it is to irradiate with wavelengths of less than 5,000 Å (is equivalent to 500 nm). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method and apparatus of the ('315) reference to include wavelengths such as 330 nm or higher as taught in the ('318) reference since such a modification is a matter of routine experimentation.

With respect to claims 43-44, the ('315) reference teaches that contaminants are in fluid that flows past the enclosure (col.1, lines 3-5 and col.3, lines 13-15) and contaminants are on a surface (figure 1, 4 and 6) of a food product (col.3, lines 33-36).

11. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al (U.S.P.N. 6,028,315) in view of Boyce et al (U.S.P.N. 6,183,637).

The teachings of the ('315) reference have previously been set forth with respect to claims 1-2, 27-29, 32-36, 38-41 and 45-47. However, regarding claim 37, the ('315) reference fails to disclose the concept of total oxidizable carbon content. The ('637) reference, which is in the art of purifying liquids (abstract) by using UV light, teaches the concept of total oxidizable carbon content (col.5, lines 31-32). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of the ('315) reference to include an oxidizable carbon reduction step as taught by the ('637) reference in order to break down organic contamination into lower molecular weight organic charged ions for the subsequent removal of bacteria (col.5, lines 28-36).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Masaaki (JP 61-046290) reference teaches using UV lamp activated by a microwave source to disinfect fluids.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 6:30-3:00.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monzer R. Chorbaji *MRC*
Patent Examiner
AU 1744
09/17/2004

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